

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Cleveland on 6/25/08.

2. The application has been amended as follows:

IN THE SPECIFICATION:

At page 1, after the title of the application, please add the following new section, thereby replacing the previous version submitted in the Amendment of 6, 31, 2007:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a national stage entry of Application No. PCT/US2004/010991 filed on April 8, 2004, which claims priority of U.S. Application No. 10/414,132 filed on April 14, 2003, both of which are hereby incorporated by reference

IN THE CLAIM:

Amend as follow:

20. (Currently Amended) A memory comprising:

a non-volatile data storage element capable of storing a first data state characterized by a negative threshold voltage and one or more second data states characterized by a positive threshold voltage; and

sense circuitry connectable to the data storage element that can distinguish the data state of the storage element, comprising;

a compensation circuit, whereby the parameter used a voltage applied to a control gate of the data storage element by the sense circuit circuitry to distinguish between the first and second data states in a normal read process is varied as a continuous function of one or more operating conditions.

24. (Cancelled)

25. (Currently Amended) The memory of claim 20-24, wherein said parameter voltage applied to the control gate of the data storage element is in a range of from 0 volts to 0.2 volts.

26. (Cancelled)

28. (Currently Amended) The memory of claim 20, further comprising:
a negative voltage source; and
a band gap generator connectable to the negative voltage source whereby said parameter voltage applied to the control gate of the data storage element is provided.

29. (Currently Amended) The memory of claim 28, wherein said parameter is a voltage and said band gap generator provides a voltage in the range of 0 volts to 0.2 volts.

30. (Currently Amended) A method of operating a non-volatile memory, comprising:

selecting a data storage element storing one of a plurality of data states, said plurality of data states comprising a first data state characterized by a negative threshold voltage and one or more second data states characterized by a positive threshold voltage; providing a sensing parameter control gate voltage, wherein said sensing parameter control gate voltage is varied as a continuous function of one or more operating conditions; and

using applying said sensing parameter control gate voltage to the selected data storage element to distinguish in a normal read process between the first data states and the second data states.

34. (Cancelled)

35. (Currently Amended) The method of claim 30-34, wherein said sensing parameter control gate voltage is a voltage in the range of 0 volts to 0.2 volts.

36. (Cancelled)

37. (Currently Amended) The method of claim 30-44, further comprising: generating a negative voltage, wherein the sensing parameter control gate voltage is produced using said negative voltage.

DETAILED ACTION

3. This office acknowledges receipt of the following items from the Applicant:
The Terminal Disclaimer filed on 6/18/08 was considered.
4. Claims 20-23, 25, 27-33, 35 and 37 are now pending.

Allowable Subject Matter

5. Claims 20-23, 25, 27-33, 35 and 37 are allowed.
6. Claims 20-23, 25, 27-33, 35 and 37 are considered allowable since prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations having a non-volatile data storage element capable of storing a first data state characterized by a negative threshold voltage and one or more second data states characterized by a positive threshold voltage; and a compensation circuit, whereby a voltage applied to a control gate of the data storage element by the sense circuitry to distinguish between the first and second data states in a normal read process is varied as a continuous function of one or more operating conditions.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (571) 272-1799. The examiner can normally be reached on Mon. - Fri. from 8:00 A.M. to 5:30 PM. The examiner's supervisor, Amir Zarabian, can be reached at (571) 272-1852. The fax phone number for this Group is (571) 273-8300.
8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov> should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Connie C. Yoha/

Primary Examiner, Art Unit 2827

June 30, 2008